Supplemental Text

As with any observational study, there is always a concern of differences in baseline characteristics that are associated with disease activity, which may substantially influence response to therapy. Given the observational nature of this study, there is a possibility of selection bias resulting due to non-random assignment of treatment. The following baseline variables were available for analysis:

- Patient age
- Gender
- Country
- Years of initial RA diagnosis
- RF status
- Presence of anti-CCP
- Evidence of structural joint damage
- Number of surgical procedures related to RA
- Extra-articular manifestation of RA
- Number of comorbid conditions at baseline
- Type of first TNF inhibitor (antibody/receptor)
- Number of ongoing medications at baseline
- Factors related to selection of the particular second biologic
- Reason for discontinuation of first TNF inhibitor treatment (reason for change)
- Baseline outcome variables (e.g., HAQ score, physician's global assessment of disease activity, DAS28 score, etc.)
- Concurrent NSAID user anytime during the first 6 months of the study
- Concurrent corticosteroid user anytime during the first 6 months of the study
- Concurrent disease-modifying anti-rheumatic drugs (DMARD) use anytime during the first 6 months of the study

Factors clearly associated with selecting rituximab or an alternative TNF inhibitor (identified by a stepwise variable selection and multivariate logistic regression model) are illustrated in Figure S2.

Figure S1 Factors associated with selection of rituximab versus an alternative TNF inhibitor

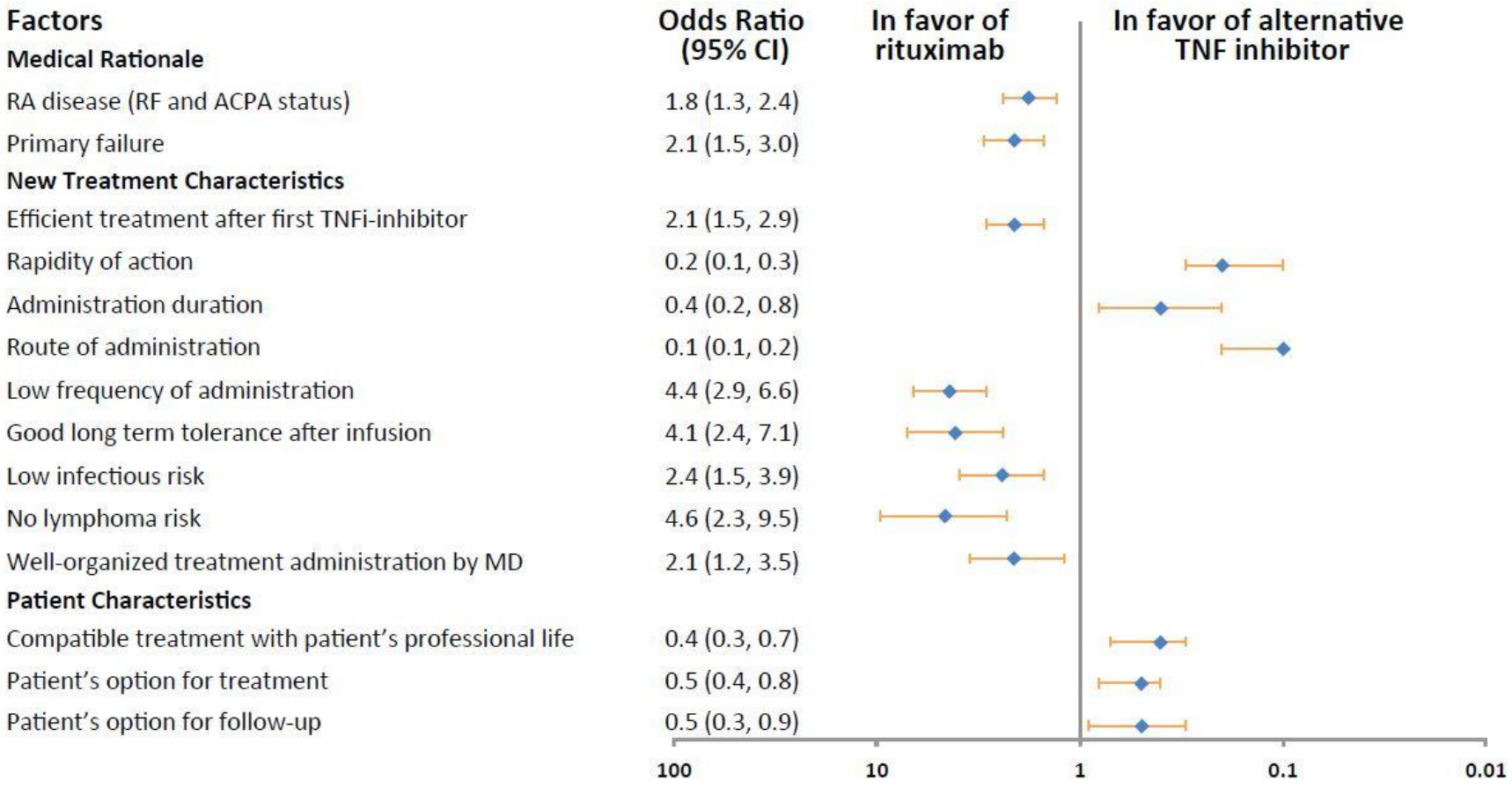

Figure S2 Patient disposition

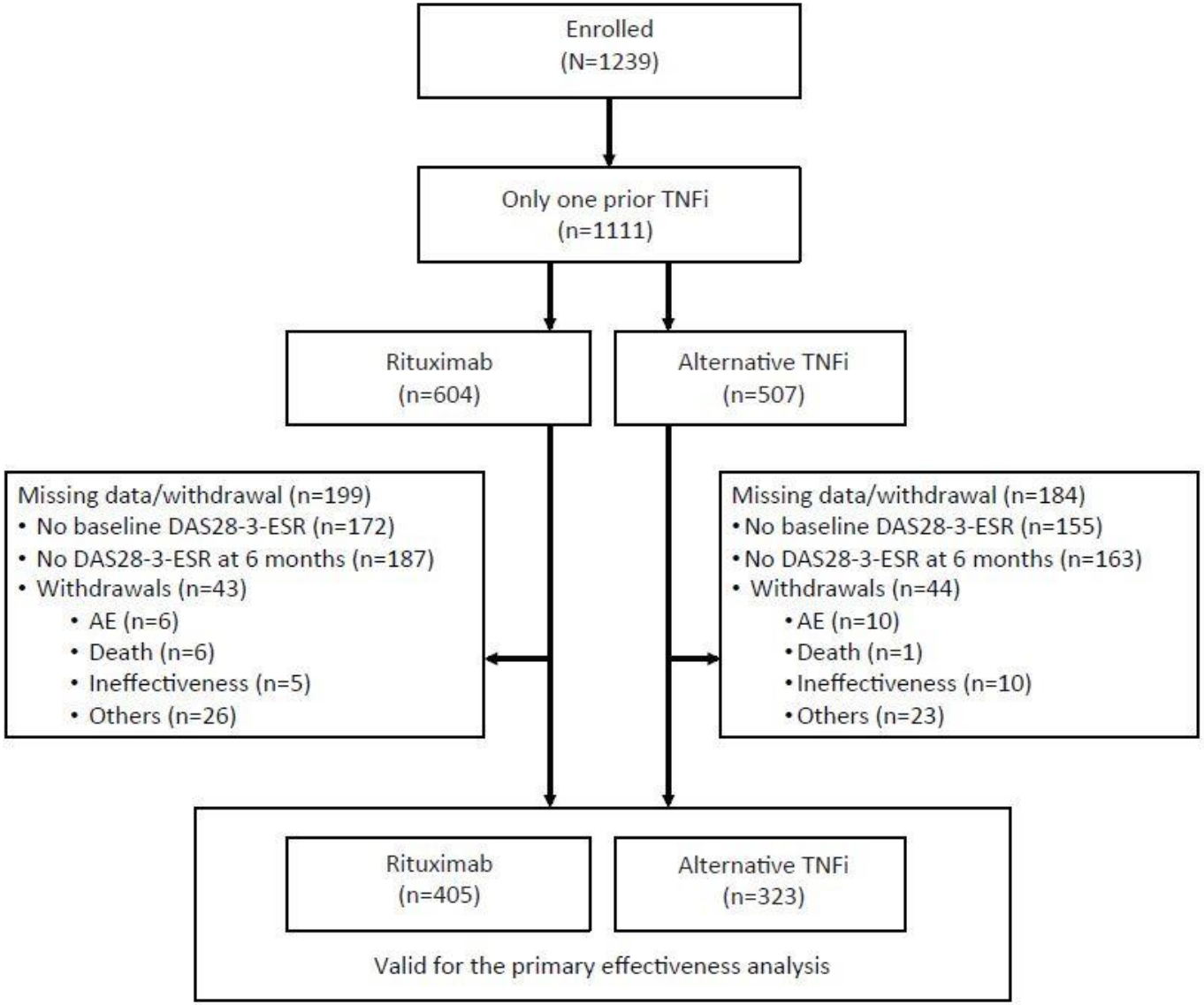

Table S1 Type of the first (failed) and the second (alternative) TNF inhibitors

n (%)	Rituximab	Alternative TNF Inhibitor	
Full Analysis Population	(n=604)	(n=507)	
	1st TNF Inhibitor	1st TNF Inhibitor	2nd TNF Inhibitor
Adalimumab	205 (33.9)	182 (35.9)	224 (44.2)
Etanercept	257 (42.5)	255 (50.3)	190 (37.5)
Infliximab	136 (22.5)	66 (13.0)	36 (7.1)
Other (Certolizumab, Golimummab, etc.)	6 (1.0)	4 (0.8)	57 (11.2)
Primary Effectiveness Population	(n=405)	(n=323)	
Adalimumab	131 (32.3)	116 (35.9)	151 (46.7)
Etanercept	176 (43.5)	162 (50.2)	117 (36.2)
Infliximab	95 (23.5)	42 (13.0)	23 (7.1)
Other (Certolizumab, Golimummab, etc.)	3 (0.7)	3 (0.9)	32 (9.9)